

SEQUENCE LISTING

- <120> METHODS FOR GLUCAGON SUPPRESSION
- <130> 030639.0031.UTL1 (249/167)
- <140> US 09/889,331
- <141> 2001-07-13
- <150> PCT/US00/00942
- <151> 2000-01-14
- <150> 60/116,380
- <151> 1999-01-14
- <150> 60/132,017
- <151> 1999-04-30
- <150> 60/175,365
- <151> 2000-01-10
- <160> 239
- <170> FastSEQ for Windows Version 4.0 Microsoft WORD 97 SR-2
- <210> 1
- <211> 39
- <212> PRT
- <213> Heloderma Horridum
- <220>
- <221> AMIDATION
- <222> (39)
- <223> Ser in position 39 is amidated
- His Ser Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 1,0
- Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 20 25
- Ser Gly Ala Pro Pro Pro Ser
- <210> 2
- <211> 39
- <212> PRT
- <213> Heloderma Suspectum
- <220>
- <221> AMIDATION
- <222> (39)



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<223> Ser in position 39 is amidated
<400> 2
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
                                     10
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
            20 .
                                 25
Ser Gly Ala Pro Pro Pro Ser
        35
<210> 3
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      Amino Acid Sequence
<400> 3
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly
<210> 4
<211> 30
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<213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
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<221> AMIDATION
<222> (30)
<223> Gly in position 30 is amidated
<400> 4
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
                 5
                                     10
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly
            20
                                25
<210> 5
<211> 30
<212> PRT
<213> Artificial Sequence
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<220>

<223> Description of Artificial Sequence: Synthetic Construct

<220> <221> MOD RES <222> (30) <223> AMIDATION, Position 30 is Gly-NH2 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly 25 <210> 6 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Construct <220> <221> MOD RES <222> (28) <223> AMIDATION, Position 28 is Asn-NH2 <400> 6 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 5 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn <210> 7 <211> 39 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Construct <220> <221> MOD RES <222> (30) <223> AMIDATION, Position 30 is Gly-NH2 <400> 7 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu 10 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser 20 30 Ser Gly Ala Pro Pro Pro Ser

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60
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<210> 8
 <211> 28
 <212> PRT
 <213> Artificial Sequence
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 <223> Description of Artificial Sequence: Synthetic
       Construct
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 <221> MOD RES
 <222> (28)
 <223> AMIDATION, Position 28 is Asn-NH2
 <400> 8
 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
                                   . 10
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 <210> 9
 <211> 28
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      Construct
 <220>
 <221> MOD RES
 <222> (28)
 <223> AMIDATION, Position 28 is Asn-NH2
 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu
                  5
                                     10
 Ala Val Arg Leu Ala Ile Glu Phe Leu Lys Asn
         20
 <210> 10
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 <223> Description of Artificial Sequence: Synthetic
      Construct
 <220>
 <221> MOD RES
 <222> (39)
 <223> AMIDATION, Position 39 is Ser-NH2
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<400> 10 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser Ser Gly Ala Pro Pro Pro Ser 35 -<210> 11 <211> 39 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Construct <220> <221> MOD RES <222> (39) <223> AMIDATION, Position 39 is Ser-NH2 <400> 11 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu 10 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 25 Ser Gly Ala Pro Pro Pro Ser 35 <210> 12 <211> 39 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Construct <220> <221> MOD RES <222> (39) <223> AMIDATION, Position 39 is Ser-NH2

<400> 12 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 10

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser

Ser Gly Ala Pro Pro Pro Ser



<210> 13 <211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Construct

<220>

<221> MOD_RES

<222> (39)

<223> AMIDATION, Position 39 is Ser-NH2

<400> 13

Tyr Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 20 25 30

Ser Gly Ala Pro Pro Pro Ser 35

<210> 14

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<220>

<221> MOD RES

<222> (39)

<223> AMIDATION, Position 39 is Tyr-NH2

<400> 14

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 20 25 30

Ser Gly Ala Pro Pro Pro Tyr 35

<210> 15

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic



Construct

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<220>
<221> MOD RES
<222> (39)
<223> AMIDATION, Position 39 is Ser-NH2
<400> 15
His Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
            20
                                25
Ser Gly Ala Pro Pro Pro Ser
. 35
<210> 16
<211> 39
<212> PRT
<213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthetic
      Construct
<220>
<221> VARIANT
<222> (6)
<223> Xaa is naphthylalanine
<220>
<221> MOD RES
<222> (39)
<223> AMIDATION, Position 39 is Ser-NH2
His Gly Glu Gly Thr Xaa Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
            20
                                25
Ser Gly Ala Pro Pro Pro Ser
        35
<210> 17
<211> 39
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      Construct
<220>
<221> MOD RES
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<222> (39) <223> AMIDATION, Position 39 is Ser-NH2 His Gly Glu Gly Thr Phe Ser Ser Asp Leu Ser Lys Gln Met Glu Glu 5 10 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 25 Ser Gly Ala Pro Pro Pro Ser 35 <210> 18 <211> 39 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Construct <220> <221> MOD RES <222> (39) <223> AMIDATION, Position 39 is Ser-NH2 <400> 18 His Gly Glu Gly Thr Phe Ser Thr Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser Ser Gly Ala Pro Pro Pro Ser 35 <210> 19 <211> 39 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Construct <220> <221> MOD RES <222> (39) <223> AMIDATION, Position 39 is Ser-NH2 <400> 19 His Gly Glu Gly Thr Phe Thr Thr Asp Leu Ser Lys Gln Met Glu Glu

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser

Ser Gly Ala Pro Pro Pro Ser 35 <210> 20 <211> 39 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Construct <220> <221> MOD RES <222> (39) <223> AMIDATION, Position 39 is Ser-NH2 <400> 20 His Gly Glu Gly Thr Phe Thr Ser Glu Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 20 25 Ser Gly Ala Pro Pro Pro Ser 35 <210> 21 <211> 39 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Construct <220> <221> MOD RES <222> (39) <223> AMIDATION, Position 39 is Ser-NH2 <220> <221> VARIANT <222> (10) <223> Xaa is pentylglycine <400> 21 His Gly Glu Gly Thr Phe Thr Ser Asp Xaa Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 25 Ser Gly Ala Pro Pro Pro Ser



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<210> 22
<211> 39
<212> PRT
<213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthetic
      Construct
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<221> MOD RES
<222> (39)
<223> AMIDATION, Position 39 is Ser-NH2
<220>
<221> VARIANT
<222> (10)
<223> Xaa is pentylglycine
<400> 22
His Gly Glu Gly Thr Phe Thr Ser Asp Xaa Ser Lys Gln Leu Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
                                25
Ser Gly Ala Pro Pro Pro Ser
        35
<210> 23
<211> 39
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      Construct
<220>
<221> MOD_RES
<222> (39)
<223> AMIDATION, Position 39 is Ser-NH2
<220>
<221> VARIANT
<222> (14)
<223> Xaa is pentylglycine
<400> 23
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Xaa Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
            20
Ser Gly Ala Pro Pro Pro Ser
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<210> 24 <211> 39 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Construct <220> <221> VARIANT <222> (14) <223> Xaa is pentylglycine <400> 24 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Xaa Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser 20 25 Ser Gly Ala Pro Pro Pro Ser 35 <210> 25 <211> 39 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Construct <220> <221> MOD RES <222> (39) <223> AMIDATION, Postion 39 is Ser-NH2 <220> <221> VARIANT <222> (22) <223> Xaa is napthylalanine <400> 25 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 5 10 Glu Ala Val Arg Leu Xaa Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 20 25 Ser Gly Ala Pro Pro Pro Ser 35 <210> 26 <211> 39 <212> PRT



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<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      Construct
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<221> MOD_RES
<222> (39)
<223> AMIDATION, Position 39 is Ser-NH2
<400> 26
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
                                     10 .
Glu Ala Val Arg Leu Phe Val Glu Trp Leu Lys Asn Gly Gly Pro Ser
            20
                                 25
Ser Gly Ala Pro Pro Pro Ser
        35
<210> 27
<211> 39
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      Construct
<220>
<221> MOD RES
<222> (39)
<223> AMIDATION, Position 39 is Ser-NH2
<400> 27
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
Glu Ala Val Arg Leu Phe Val Glu Phe Leu Lys Asn Gly Gly Pro Ser
            20
                                 25
                                                     30
Ser Gly Ala Pro Pro Pro Ser
<210> 28
<211> 39
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      Construct
<220>
<221> MOD_RES
<222> (39)
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<223> AMIDATION, Position 39 is Ser-NH2 <400> 28 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Val Glu Phe Leu Lys Asn Gly Gly Pro Ser 25 Ser Gly Ala Pro Pro Pro Ser 35 <210> 29 <211> 39 <212> PRT .<213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Construct <220> <221> VARIANT <222> (23) <223> Xaa at position 23 is tertiary-butylglycine <220> <221> MOD RES <222> (39) <223> AMIDATION, Position 39 is Ser-NH2 <400> 29 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu 5 Glu Ala Val Arg Leu Phe Xaa Glu Phe Leu Lys Asn Gly Gly Pro Ser 20 Ser Gly Ala Pro Pro Pro Ser . <210> 30 <211> 39 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Construct <220> <221> MOD RES <222> (39) <223> AMIDATION, Position 39 is Ser-NH2 <400> 30

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu



10 Glu Ala Val Arg Leu Phe Ile Asp Trp Leu Lys Asn Gly Gly Pro Ser 25 Ser Gly Ala Pro Pro Pro Ser 35 <210> 31 <211> 39 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Construct <220> <221> MOD_RES <222> (39) <223> AMIDATION, Position 39 is Ser-NH2 <400> 31 His Ala Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser Ser Gly Ala Pro Pro Pro Ser 35 <210> 32 <211> 39 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Construct <220> <221> VARIANT <222> (31) <223> Xaa at position 31 is thioproline <220> <221> VARIANT <222> (36)..(38)

<222> (36)..(38) <223> Xaa at positions 36,37 and 38 is thioproline <220> <221> MOD_RES

<222> (39) <223> AMIDATION, Position 39 is Ser-NH2

<400> 32



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His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
                                     10
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser
Ser Gly Ala Xaa Xaa Xaa Ser
        35
<210> 33
<211> 39
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      Construct
<220>
<221> VARIANT
<222> (36)..(38)
<223> Xaa at positions 36, 37, and 38 is thioproline
<220>
<221> MOD_RES
<222> (39)
<223> AMIDATION, Position 39 is Ser-NH2
<400> 33
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
                                 25
Ser Gly Ala Xaa Xaa Xaa Ser
        35
<210> 34
<211> 39
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      Construct
<220>
<221> VARIANT
<222> (31)
<223> Xaa at position 31 is homoproline
<220>
<221> VARIANT
<222> (36)..(38)
```

<223> Xaa at positions 36, 37, and 38 is homoproline



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<220>
<221> MOD RES
<222> (39)
<223> AMIDATION, Position 39 is Ser-NH2
<400> 34
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser
            20
                                 25
Ser Gly Ala Xaa Xaa Xaa Ser
        35
<210'> 35
<211> 39
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<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     Construct
<220>
<221> VARIANT
<222> (36)..(38)
<223> Xaa at positions 36, 37, and 38 is homoproline.
<220>
<221> MOD RES
<222> (39)
<223> AMIDATION, Position 39 is Ser-NH2
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
Ser Gly Ala Xaa Xaa Xaa Ser
        35
<210> 36
<211> 39
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<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      Construct
<220>
<221> VARIANT
<222> (31)
<223> Xaa at position 31 is thioproline
```



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<220>
<221> VARIANT
<222> (36)..(38)
<223> Xaa at positions 36,37, and 38 is thioproline
<220>
<221> MOD_RES
<222> (39)
<223> AMIDATION, Position 39 is Ser-NH2
<400> 36
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
                                    10
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Xaa Ser
                              25
  . 20
Ser Gly Ala Xaa Xaa Ser
        35
<210> 37
<211> 39
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     Construct
<220>
<221> VARIANT
<222> (31)
<223> Xaa at position 31 is homoproline
<220>
<221> VARIANT
<222> (36)..(38)
<223> Xaa at positions 36,37, and 38 is homoproline
<220>
<221> MOD_RES
<222> (39)
<223> AMIDATION, Position 39 is Ser-NH2
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Xaa Ser
Ser Gly Ala Xaa Xaa Xaa Ser
        35
<210> 38
<211> 39
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<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      Construct
<220>
<221> VARIANT
<222> (31)
<223> Xaa at position 31 is N-methylalanine
<220>
<221> VARIANT
<222> (36)..(38)
<223> Xaa at positions 36, 37 and 38 is N-methylalanine
<220>
<221> MOD RES
<222> (39)
<223> AMIDATION, Position 39 is Ser-NH2
<400> 38
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser
                                 25
            20
Ser Gly Ala Xaa Xaa Ser
<210> 39
<211> 39
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      Construct
<220>
<221> VARIANT
<222> (36)..(38)
<223> Xaa at positions 36, 37, and 38 is N-methylalanine
<220>
<221> MOD RES
<222> (39)
<223> AMIDATION, Position 39 is Ser-NH2
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
            20
```



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Ser Gly Ala Xaa Xaa Ser
 35
<210> 40
<211> 39
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<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     Construct
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<222> (31)
<223> Xaa at position 31 is N-methylalanine
<220>
<221> VARIANT
<222> (36)..(38)
<223> Xaa at positions 36, 37, and 38 is N-methylalanine
<220>
<221> MOD RES
<222> (39)
<223> AMIDATION, Position 39 is Ser-NH2
<400> 40
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Xaa Ser
         . 20
Ser Gly Ala Xaa Xaa Ser
        35
<210> 41
<211> 29
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     Construct
<220>
<221> VARIANT
<222> (1)
<223> Xaa at position 1 is His, Arg or Tyr
<220>
<221> VARIANT
<222> (2)
<223> Xaa at position 2 is Ser, Gly Ala, or Thr
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<220>
 <221> VARIANT
 <222> (3)
 <223> Xaa at position 3 is Asp or Glu
 <220>
 <221> VARIANT
 <222> (5)
 <223> Xaa at position 5 is Ala or Thr
 <220>
 <221> VARIANT
 <222> (6)
 <223> Xaa at position 6 is Ala, Phe, Tyr or
      napthylalanine
 <220>
 <221> VARIANT
 <222> (7)
 <223> Xaa at position 7 is Thr or Ser
 <220>
 <221> VARIANT
 <222> (8)
 <223> Xaa at position 8 is Ala, Ser or Thr
 <220>
<221> VARIANT
 <222> (9)
 <223> Xaa at position 9 is Asp or Glu
 <220>
 <221> VARIANT
 <222> (10)
 <223> Xaa at position 10 is Ala, Leu, Ile, Val,
      pentylglycine, or Met
 <220>
 <221> VARIANT
 <222> (11)
 <223> Xaa at position 11 is Ala or Ser
 <220>
 <221> VARIANT
 <222> (12)
 <223> Xaa at position 12 is Ala or Lys
 <220>
 <221> VARIANT
 <222> (13)
 <223> Xaa at position 13 is Ala or Gln
 <220>
 <221> VARIANT
 <222> (14)
 <223> Xaa at position 14 is Ala, Leu, Ile,
    pentylglycine, Val or Met
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<220>
<221> VARIANT
<222> (15)
<223> Xaa at position 15 is Ala or Glu
<220>
<221> VARIANT
<222> (16)..(17)
<223> Xaa at position 16 and 17 is Ala or Glu
<220>
<221> VARIANT
<222> (19)
<223> Xaa at position 19 is Ala or Val
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<221> VARIANT
<222> (20)
<223> Xaa at position 20 is Ala or Arg
<220>
<221> VARIANT
<222> (21)
<223> Xaa at position 21 is Ala or Leu
<220>
<221> VARIANT
<222> (22)
<223> Xaa at position 22 is Ala, Phe, Tyr, or
      naphthylalanine
<220>
<221> VARIANT
<222> (23)
<223> Xaa at position 23 is Ile, Val, Leu,
      pentylglycine, tert-butylglycine, or Met
<220>
<221> VARIANT
<222> (24)
<223> Xaa at position 24 is Ala, Glu, or Asp
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<221> VARIANT
<222> (25)
<223> Xaa at position 25 is Ala, Trp, Phe, Tyr or
      napthylalanine
<220>
<221> VARIANT
<222> (26)
<223> Xaa at position 26 is Ala or Leu
<220>
<221> VARIANT
<222> (27)
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<223> Xaa at position 27 is Ala or Lys
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 <221> VARIANT
 <222> (28)
 <223> Xaa at position 28 is Ala or Asn
<220>
 <221> VARIANT
 <222> (29)
 <223> Xaa at position 29 is OH, NH2, Gly-OH, Gly-NH2,
      Gly-Gly-OH, Gly-Gly-NH2 and further as in the
      specification
 <400> 41
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 <213> Artificial Sequence
<220>
 <223> Description of Artificial Sequence: Synthetic
      Construct
 <220>
 <221> VARIANT
 <222> (1)
 <223> Xaa at position 1 is His, Arg, Tyr, Ala,
      norvaline, Val, or norleucine
 <220>
 <221> VARIANT
 <222> (2)
 <223> Xaa at position 2 is Ser, Gly, Ala, or Thr
 <220>
 <221> VARIANT
 <222> (3)
 <223> Xaa at position 3 is Ala, Asp, or Glu
 <220>
 <221> VARIANT
 <222> (4)
 <223> Xaa at position 4 is Ala, norvaline, Val,
      norleucine or Gly
 <220>
 <221> VARIANT
<222> (5)
<223> Xaa at position 5 is Ala or Thr
```



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<220>
<221> VARIANT
<222> (6)
<223> Xaa at position 6 is Phe, Tyr, or napthylalanine
<220>
<221> VARIANT
<222> (7)
<223> Xaa at position 7 is Thr or Ser
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<221> VARIANT
<222> (8)
<223> Xaa at position 8 is Ala, Ser, or Thr
<220>
<221> VARIANT
<222> (9)
<223> Xaa at position 9 is Ala, norvaline, norleucine,
      Asp or Glu
<220>
<221> VARIANT
<222> (10)
<223> Xaa at position 10 is Ala, Leu, Ile, Val,
     pentylglycine, or Met
<220>
<221> VARIANT
<222> (11)
<223> Xaa at position 11 is Ala of Ser
<220>
<221> VARIANT
<222> (12)
<223> Xaa at position 12 is Ala or Lys
<220>
<221> VARIANT
<222> (13)
<223> Xaa at position 13 is Ala or Gln
<220>
<221> VARIANT
<222> (14)
<223> Xaa at position 14 is Ala, Leu, Ile,
      pentylglycine, Val or Met
<220>
<221> VARIANT
<222> (15)..(17)
<223> Xaa at positions 15, 16, and 17 is Ala or Glu
<220>
<221> VARIANT
<222> (19)
```



```
<223> Xaa at position 19 is Ala or Val
<220>
<221> VARIANT
<222> (20)
<223> Xaa at position 20 is Ala or Arg
<220>
<221> VARIANT
<222> (21)
<223> Xaa at position 21 is Ala or Leu
<220>
<221> VARIANT
<222> (22)
<223> Xaa at position 22 is Phe, Tyr or napthylalanine
<220>
<221> VARIANT
<222> (23)
<223> Xaa at position 23 is Ile, Val, Leu,
      pentylglycine, tert-butylglycine or Met
<220>
<221> VARIANT
<222> (24)
<223> Xaa at position 24 is Ala, Glu or Asp
<220>
<221> VARIANT
<222> (25)
<223> Xaa at position 25 is Ala, Trp, Phe, Tyr or
      napthylalanine
<220>
<221> VARIANT
<222> (26)
<223> Xaa at position 26 is Ala or Leu
<220>
<221> VARIANT
<222> (27)
<223> Xaa at position 27 is Ala or Lys
<220>
<221> VARIANT
<222> (28)
<223> Xaa at position 28 is Ala or Asn
<220>
<221> VARIANT
<222> (29)
<223> Xaa at position 29 is OH, NH2, Gly-OH, Gly-NH2,
      Gly-Gly-OH, Gly-Gly-NH2 and further as indicated
      in the specification
```

<400> 42



10 2.0 25 <210> 43 <211> 29 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Construct <220> <221> VARIANT <222> (1) <223> Xaa at position1 is His or Arg <220> -<221> VARIANT <222> (2) <223> Xaa at position 2 is Gly or Ala <220> <221> VARIANT <222> (3) <223> Xaa at position 3 is Asp or Glu <220> <221> VARIANT <222> (5) <223> Xaa at position 5 is Ala or Thr <220> <221> VARIANT <222> (6) <223> Xaa at position 6 is Ala, Phe, or napthylalanine <220> <221> VARIANT <222> (7) <223> Xaa at position 7 is Ser, or Thr <220> <221> VARIANT <222> (8) <223> Xaa at position 8 is Ala, Ser, or Thr <220> <221> VARIANT <222> (9)

<220> <221> VARIANT

<223> Xaa at position 9 is Asp or Glu



```
<222> (10)
<223> Xaa at position 10 is Ala, Leu, or pentylglycine
<220>
<221> VARIANT
<222> (11)
<223> Xaa at position 11 is Ala or Ser
<220>
<221> VARIANT
<222> (12)
<223> Xaa at position 12 is Ala or Lys
<220>
<221> VARIANT
<222> (13)
<223> Xaa at position 13 Ala or Gln
<220>
<221> VARIANT
<222> (14)
<223> Xaa at position 14 is Ala, Leu or pentylglycine
<220>
<221> VARIANT
<222> (15)..(17)
<223> Xaa at positions 15, 16, and 17 is Ala or Glu
<220>
<221> VARIANT
<222> (19)
<223> Xaa at position 19 is Ala or Val
<220>
<221> VARIANT
<222> (20)
<223> Xaa at position 20 is Ala or Arg
<220>
<221> VARIANT
<222> (21)
<223> Xaa at position 21 is Ala or Leu
<220>
<221> VARIANT
<222> (22)
<223> Xaa at position 22 is Phe or napthylalanine
<220>
<221> VARIANT
<222> (23)
<223> Xaa at position 23 is Ile, Val or
     tert-butylglycine
<220>
<221> VARIANT
<222> (24)
```



```
<223> Xaa at position 24 is Ala, Glu or Asp
<220>
<221> VARIANT
<222> (25)
<223> Xaa at position 25 is Ala, Trp or Phe
<220>
<221> VARIANT
<222> (26)
<223> Xaa at position 26 is Ala or Leu
<220>
<221> VARIANT
<222> (27)
<223> Xaa at position is Ala or Lys
<220>
<221> VARIANT
<222> (28)
<223> Xaa at position 28 is Ala or Asn
<220>
<221> VARIANT
<222> (29)
<223> Xaa at position 29 is -OH, -NH2, Gly-OH, Gly-NH2,
     Gly-Gly-Oh, Gly-Gly-NH2, and further as indicated
     in the specification
<400> 43
Xaa Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
<210> 44
<211> 29
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     Construct
<220>
<221> VARIANT
<222> (1)
<223> Xaa in position 1 is His or Ala
<220>
<221> VARIANT
<222> (2)
<223> Xaa in position 2 is Gly or Ala
<220>
```



```
<221> VARIANT
<222> (3)
<223> Xaa in position 3 is Ala, Asp or Glu
<220>
<221> VARIANT
<222> (4)
<223> Xaa in position 4 is Ala or Gly
<220>
<221> VARIANT
<222> (5)
<223> Xaa in position 5 is Ala or Thr
<220>
<221> VARIANT
<222> (6)
<223> Xaa in position 6 is Phe or napthylalanine
<220>
<221> VARIANT
<222> (7)
<223> Xaa in position 7 is Thr or Ser
<220>
<221> VARIANT
<222> (8)
<223> Xaa in position 8 is Ala, Ser or Thr
<220>
<221> VARIANT
<222> (9)
<223> Xaa in position 9 is Ala, Asp or Glu
<220>
<221> VARIANT
<222> (10)
<223> Xaa in position 10 is Ala, Leu or pentylglycine
<220>
<221> VARIANT
<222> (11)
<223> Xaa in position 11 is Ala or Ser
<220>
<221> VARIANT
<222> (12)
<223> Xaa in position 12 is Ala or Lys
<220>
<221> VARIANT
<222> (13)
<223> Xaain position 13 is Ala or Gln
<220>
<221> VARIANT
```



```
<222> (14)
 <223> Xaa in position 14 is Ala, Leu, Met or
       pentylglycine
 <220>
 <221> VARIANT
 <222> (15)..(17)
 <223> Xaa in positions 15, 16 & 17 is Ala or Glu
 <220>
 <221> VARIANT
 <222> (19)
 <223> Xaa in position 19 is Ala or Val
 <220>
 <221> VARIANT
 <222> (20)
<223> Xaa in position 20 is Ala or Arg
 <220>
 <221> VARIANT
 <222> (21)
 <223> Xaa in position 21 is Ala or Leu
 <220>
 <221> VARIANT
· <222> (22)
 <223> Xaa at position 22 is Phe or napthylalanine
 <221> VARIANT
 <222> (23)
 <223> Xaa at position 23 is Ile, Val or
       tert-butylglycine
 <220>
 <221> VARIANT
 <222> (24)
 <223> Xaa at position 24 is Ala, Glu or Asp
 <220>
 <221> VARIANT
 <222> (25)
 <223> Xaa at position 25 is Ala, Trp or Phe
 <220>
 <221> VARIANT
 <222> (26)
 <223> Xaa at position 26 is Ala or Leu
 <220>
 <221> VARIANT
 <222> (27)
 <223> Xaa at position 27 is Ala or Lys
 <220>
```



```
<221> VARIANT
<222> (28)
<223> Xaa at position 28 is Ala or Asn
<220>
<221> VARIANT
<222> (29)
<223> Xaa at position 29 is OH, NH2, Gly-OH, Gly-NH2,
     Gly-Gly-OH, Gly-Gly-NH2 and further as indicated
      in the specification
<400> 44
10
Xaa Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
           20
                              25
<210> 45
<211> 28
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     Construct
<220>
<221> VARIANT
<222> (1)
<223> Xaa in position 1 is His, Arg, Tyr or
     4-imidazopropionyl
<220>
<221> VARIANT
<222> (2)
<223> Xaa in positon 2 is Ser, Gly, Ala or Thr
<220>
<221> VARIANT
<222> (3)
<223> Xaa in position 3 is Asp or Glu
<220>
<221> VARIANT
<222> (5)
<223> Xaa in position 5 is Ala or Thr
<220>
<221> VARIANT
<222> (6)
<223> Xaa in position 6 is Ala, Phe, Tyr or
     napthylalanine
<220>
```

<221> VARIANT



```
<222> (7)
 <223> Xaa in position 8 is Thr or Ser
 <220>
 <221> VARIANT
 <222> (8)
 <223> Xaa in position 8 is Ala, Ser or Thr
 <220>
 <221> VARIANT
 <222> (9)
 <223> Xaa in position 9 is Asp or Glu
 <220>
 <221> VARIANT
 <222> (10)
 <223> Xaa in position 10 is Ala, Leu, Ile, Val,
       pentylglycine or Met
 <220>
 <221> VARIANT
 <222> (11)
 <223> Xaa in position 11 is Ala or Ser
 <220>
 <221> VARIANT
 <222> (12)
<223> Xaa in position 12 is Ala or Lys
 <220>
 <221> VARIANT
 <222> (13)
 <223> Xaa in position 13 is Ala or Gln
 <220>
 <221> VARIANT
 <222> (14)
 <223> Xaa in position 14 is Ala, Leu, Ile,
    pentylglycine, Val or Met
 <220>
 <221> VARIANT
 <222> (15)..(17)
 <223> Xaa in positions 15, 16 & 17 is Ala or Glu
 <220>
 <221> VARIANT
 <222> (19)
 <223> Xaa in position 19 is Ala or Val
 <220>
 <221> VARIANT
 <222> (20)
 <223> Xaa in position 20 is Ala or Arg
 <220>
 <221> VARIANT
```

```
<222> (21)
 <223> Xaa in position 21 is Ala, Leu, Lys-NH3-R where R
       is Lys, Arg, C1-C10 straight chain or branched
       alkanoyl or cycloalkanoyl
 <220>
 <221> VARIANT
 <222> (22)
 <223> Xaa in position 22 is Phe, Tyr, or naphthylalanine
 <220>
 <221> VARIANT
 <222> (23)
 <223> Xaa at position 23 is Ile, Val, Leu, pentylglycine,
   tert-butylglycine or Met
 <220>
 <221> VARIANT
 <222> (24)
 <223> Xaa at position 24 is Ala, Glu or Asp
 <220>
 <221> VARIANT
 <222> (25)
 <223> Xaa at position 25 is Ala, Trp, Phe, Tyr or
      naphthylalanine
· <220>
 <221> VARIANT
 <222> (26)
 <223> Xaa at position 26 is Ala or Leu
 <220>
 <221> VARIANT
 <222> (27)
 <223> Xaa at position 27 is Lys-Asn, Asn-Lys,
 Lys-NH3-R-Asn, Asn-Lys-NH3-R, Lys-NH3-R-Ala,
 Ala-Lys-NH3-R, where R is Lys, Arg, C1-C10 straight
      chain or branched alkanoyl or cycloalkylalkanoyl
 <220>
 <221> VARIANT
 <222> (28)
 <223> Xaa at position 28 is OH, NH2, Gly-OH, Gly-NH2,
 Gly-Gly-OH, Gly-Gly-NH2 and further as indicated
 in the specification
 <400> 45
 5
                                   10
 Xaa Xaa Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 <210> 46
 <211> 28
 <212> PRT
```



```
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      Construct
<220>
<221> VARIANT
<222> (1)
<223> Xaa in position 1 is His, Arg, Tyr, Ala,
      norvaline, Val norleucine, or 4-imidazopropionyl
<220>
<221> VARIANT
<222> (2)
<223> Xaa in position 2 is Ser, Gly, Ala, or Thr
<221> VARIANT
<222> (3)
<223> Xaa in position 3 is Ala, Asp, or Glu
<220>
<221> VARIANT
<222> (4)
<223> Xaa in position 4 is Ala, norvaline, Val,
      norleucine or Gly
<220>
<221> VARIANT
<222> (5)
<223> Xaa in position 5 is Ala or Thr
<220>
<221> VARIANT
<223> Xaa in position 6 is Phe, Tyr or napthylalanine
<220>
<221> VARIANT
<222> (7)
<223> Xaa in position 7 is Thr or Ser
<220>
<221> VARIANT
<222> (8)
<223> Xaa in position 8 is Ala, Ser or Thr
<220>
<221> VARIANT
<222> (9)
<223> Xaa in position 9 is Ala, Norvaline, Val,
      Norleucine, Asp or Glu
<220>
<221> VARIANT
```



```
<222> (10)
<223> Xaa in position 10 is Ala, Leu, Ile, Val
      pentylglycine or Met
<220>
<221> VARIANT
<222> (11)
<223> Xaa in position 11 is Ala or Ser
<220>
<221> VARIANT
<222> (12)
<223> Xaa in position 12 is Ala or Lys
<220>
<221> VARIANT
<222> (13)
<223> Xaa in position 13 is Ala or Gln
<220>
<221> VARIANT
<222> (14)
<223> Xaa in position 14 is Ala, Leu, Ile, pentylglycine
      Val or Met
<220>
<221> VARIANT
<222> (15)..(17)
<223> Xaa in positions 15, 16 & 17 stands for Ala or Glu
<220>
<221> VARIANT
<222> (19)
<223> Xaa in position 19 is Ala or Val
<220>
<221> VARIANT
<222> (20)
<223> Xaa in position 20 is Ala or Arg
<220>
<221> VARIANT
<222> (21)
<223> Xaa in position 21 is Ala, Leu or Lys-NH3 where R
      is Lys, Arg, C1-C10 straight chain or branched
      alkanoyl or cycloalleyl-alkanoyl
<220>
<221> VARIANT
<222> (22)
<223> Xaa at position 22 is Phe, Tyr or naphthylalanine
<220>
<221> VARIANT
<222> (23)
<223> Xaa at position 23 is Ile, Val, Leu, pentylglycine,
      tert-butylglycine or Met
```

```
<220>
<221> VARIANT
<222> (24)
<223> Xaa at position 24 is Ala, Glu or Asp
<221> VARIANT
<222> (25)
<223> Xaa at position 25 is Ala, Trp, Phe, Tyr
      or naphthylalanine
<220>
<221> VARIANT
<222> (26)
<223> Xaa at position 26 is Ala or Leu
<221> VARIANT
<222> (27)
<223> Xaa at position 27 is Lys-Asn, Asn-Lys,
Lys-NH3-R-Asn, Asn-Lys-NH3-R, Lys-NH3-R-Ala,
Ala-Lys-NH3-R, where R is Lys, Arg, C1-C10 straight
      chain or branched alkanoyl or cycloalkylalkanoyl
<220>
<221> VARIANT
<222> (28)
<223> Xaa at position 28 is OH, NH2, Gly-OH, Gly-NH2,
      Gly-Gly-OH, Gly-Gly-NH2 and further as indicated
      in the specification
<400> 46
Xaa Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
<210> 47
<211> 40
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     Construct
<220>
<221> VARIANT
<222> (1)
<223> Xaa in position 1 is His, Arg or Thr
<220>
<221> VARIANT
<222> (2)
<223> Xaa in position 2 is Ser, Gly, Ala, or Thr
```



```
<220>
 <221> VARIANT
 <222> (3)
 <223> Xaa in position 3 is Asp or Glu
 <220>
 <221> VARIANT
 <222> (6)
 <223> Xaa in position 6 is Phe, Tyr or naphthalanine
 <220>
 <221> VARIANT
 <222> (7)
 <223> Xaa in position 7 is Thr or Ser
 <220>
 <221> VARIANT
 <222> (8)
 <223> Xaa in position 8 is Ser or Thr
 <220>
 <221> VARIANT
 <222> (9)
 <223> Xaa in position 9 is Asp or Glu
 <220>
<221> VARIANT
 <222> (10)
 <223> Xaa in position 10 is Leu, Ile, Val, pentylglycine
       or Met
 <220>
 <221> VARIANT
 <222> (14)
 <223> Xaa at position 14 is Leu, Ile, pentylglycine,
       Val or Met
 <220>
 <221> VARIANT
 <222> (22)
 <223> Xaa in position 22 is Phe, Tyr or naphthylalanine
 <220>
 <221> VARIANT
 <222> (23)
 <223> Xaa in position 23 is Ile, Val, Leu,
       pentylglycine, tert-butylglycine or Met
 <220>
 <221> VARIANT
 <222> (24)
 <223> Xaa in position 24 is Glu or Asp
 <220>
 <221> VARIANT
 <222> (25)
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<223> Xaa in position 25 is Trp, Phe, Tyr or naphthylalanine <220> <221> VARIANT ·<222> (31) <223> Xaa in position 31 is independently Pro, homoproline, 3-hydroxproline, 4-hydroxyproline, thioproline, N-alkylglycine, N-alkylpentylglycine or N-alkylalanine <220> <221> VARIANT <222> (36)..(38) <223> Xaa in positions 36, 37 & 38 is independently Pro, homoproline, 3-hydroxyproline, 4-hydroxproline, thioproline, N-alkylglycine, N-alkylpentylglycine or N-alkylalanine <220> <221> VARIANT <222> (39) <223> Xaa in position 39 is Ser, Thr or Tyr <220> · <221> VARIANT <222> (40) <223> Xaa in position 40 is -OH or -NH3, with the proviso that the compound does not have the formula of either SEQ. ID. NOS. 1 or 2 <400> 47 Xaa Xaa Xaa Gly Thr Xaa Xaa Xaa Xaa Ser Lys Gln Xaa Glu Glu 1 5 10 15 Glu Ala Val Arg Leu Xaa Xaa Xaa Leu Lys Asn Gly Gly Xaa Ser 20 Ser Gly Ala Xaa Xaa Xaa Xaa 35 <210> 48 <211> 40 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic · Construct <220> <221> VARIANT <222> (1) <223> Xaa in position 1 is His, Arg, Tyr or 4-imidazopropionyl

<220>

```
<221> VARIANT
  <222> (2)
  <223> Xaa in position 2 is Ser, Gly, Ala or Thr
<220>
  <221> VARIANT
  <222> (3)
  <223> Xaa in position 3 is Asp or Glu
  <220>
  <221> VARIANT
  <222> (6)
  <223> Xaa in position 6 is Phe, Tyr or naphthylalanine
  <220>
  <221> VARIANT
  <222> (7)..(8)
  <223> Xaa in positions 7 & 8 is Thr or Ser
  <220>
  <221> VARIANT
  <222> (9)
  <223> Xaa in position 9 is Asp or Glu
  <220>
  <221> VARIANT
  <222> (10)
  <223> Xaa in position 10 is Leu, Ile, Val, pentylglycine
  <220>
  <221> VARIANT
  <222> (14)
  <223> Xaa at position 14 is Leu, Ile, pentylglycine,
  Val or Met
  <220>
  <221> VARIANT
  <222> (22)
  <223> Xaa in position 22 is Phe, Tyr or naphthylalanine
  <220>
  <221> VARIANT
  <222> (23)
  <223> Xaa in position 23 is Ile, Val, Lu, pentylglycine,
        tert-butylglycine or Met
  <220>
  <221> VARIANT
  <222> (24)
  <223> Xaa in position 24 is Glu or Asp
  <220>
 <221> VARIANT
 <222> (25)
 <223> Xaa in position 25 is Trp, Phe, Tyr, or
```

naphthylalanine

<400> 49

```
<220>
 <221> VARIANT
<222> (27)
 <223> Xaa in position 27 is Lys-Asn-Lys, Lys-NH3-R-Asn,
       Asn-Lys-NH3-R where R is Lys, Arg, C1-C10 straight
       chain or branched alkanoyl or cycloalkylalkanoyl
<220>
<221> VARIANT
 <222> (30)
 <223> Xaa in position is independently Pro,
      homoproline, 3-hydroxproline, 4-hydroxyproline,
      thioproline, N-alkylglycine, N-alkylpentylglycine
      or N-alkylalanine
<220>
<221> VARIANT
<222> (35)..(39)
<223> Xaa in positions 35-39 is independently Pro,
      homoproline, 3-hydroxproline, 4-hydroxyproline,
      thioproline, N-alkylglycine, N-alkylpentylglycine
      or N-alkylalanine
<220>
<221> VARIANT
<222> (40)
<223> Xaa in position 40 is -OH or NH2, with the proviso
      that the compound does not have the formula of
      either SEQ. ID. NOS. 1 or 2
<400> 48
Xaa Xaa Xaa Gly Thr Xaa Xaa Xaa Xaa Ser Lys Gln Xaa Glu Glu
 1,
                                     10
Glu Ala Val Arg Leu Xaa Xaa Xaa Leu Xaa Gly Gly Xaa Ser Ser
                                 25
Gly Ala Xaa Xaa Xaa Xaa Xaa
<210> 49
<211> 30
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> AMIDATION
<222> (30)
<223> Gly in position 30 is amidated
```



His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly 25 <210> 50 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 50 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn 20 <210> 51 <211> 28 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 51 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn <210> 52 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic

Amino Acid Sequence

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<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
<400> 52
His Ala Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
      5
                                    10
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
         20
<210> 53
<211> 28
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
<400> 53
His Gly Glu Gly Ala Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
    . 20
                                25
<210> 54
<211> 28
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     Amino Acid Sequence
<220>,-
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
His Gly Glu Gly Thr Ala Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
```

<211> 28

<212> PRT

<210> 55

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<213> Artificial Sequence
   <220>
   <223> Description of Artificial Sequence: Synthetic
        Amino Acid Sequence
   <220>
   <221> AMIDATION
   <222> (28)
   <223> Asn in position 28 is amidated
   <400> 55
  His Gly Glu Gly Thr Phe Thr Ala Asp Leu Ser Lys Gln Leu Glu Glu
  Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
               20
                                   25
  <210> 56
  <211> 28
  <212> PRT
  <213> Artificial Sequence
  <223> Description of Artificial Sequence: Synthetic
        Amino Acid Sequence
< 220>
  <221> AMIDATION
  <222> (28)
  <223> Asn in position 28 is amidated
  His Gly Glu Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Leu Glu Glu
                                       10
  Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
  <210> 57
  <211> 28
  <212> PRT
  <213> Artificial Sequence
  <220>
  <223> Description of Artificial Sequence: Synthetic
        Amino Acid Sequence
  <220>
  <221> AMIDATION
  <222> (28)
  <223> Asn in position 28 is amidated
  His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ala Lys Gln Leu Glu Glu
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Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn 20 25 <210> 58 <211> 28 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Ala Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn <210> 59 <211> 28 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Ala Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn <210> 60 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

43

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<400> 60
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Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn 20 25

<210> 61 <211> 28

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<220>

<223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

<220>

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<222> (28)

<223> Asn in position 28 is amidated

<400> 61

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Ala Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn 20 25

<210> 62

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

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<222> (28)

<223> Asn in position 28 is amidated

<400> 62

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Ala 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn 20 25

<210> 63

<211> 28

<212> PRT

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<220>



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25

Glu Ala Val Ala Leu Phe Ile Glu Phe Leu Lys Asn

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<400> 66
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
Glu Ala Val Arg Ala Phe Ile Glu Phe Leu Lys Asn
<210> 67
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<400> 67
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                                     10
Glu Ala Val Arg Leu Phe Ile Ala Phe Leu Lys Asn
            20
                                 25
<210> 68
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<222> (28)
<223> Asn in position 28 is amidated
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<400> 68



His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu 10 Glu Ala Val Arg Leu Phe Ile Glu Ala Leu Lys Asn 20 <210> 69 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 69 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu 5 Glu Ala Val Arg Leu Phe Ile Glu Phe Ala Lys Asn 20 <210> 70 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 70 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Ala Asn 20 <210> 71 <211> 28 <212> PRT <213> Artificial Sequence

<223> Description of Artificial Sequence: Synthetic

Amino Acid Sequence

<220> <221> AMIDATION <222> (28) <223> Ala in position 28 is amidated <400> 71 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu 10 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Ala 20 <210> 72 <211> 38 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (38) <223> Pro in position 38 is amidated His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 20 Ser Gly Ala Pro Pro Pro 35 <210> 73 <211> 38 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (38) <223> Pro in position 38 is amidated His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu 5 10

Ser Gly Ala Pro 'Pro Pro

20

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser

25

· <210> 74 <211> 37 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (37) <223> Pro in position 37 is amidated <400> 74 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 5 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 20 25 Ser Gly Ala Pro Pro 35 <210> 75 <211> 37 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (37) <223> Pro in position 37 is amidated <400> 75 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser 25 Ser Gly Ala Pro Pro 35 <210> 76 <211> 36 <212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic



Amino Acid Sequence

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<223> Pro in position 36 is amidated
<400> 76
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Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
Ser Gly Ala Pro
        35
<210> 77
<211> 36
<212> PRT
<213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
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<221> AMIDATION
<222> (36)
<223> Pro in position 36 is amidated
<400> 77
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
                 5
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
            20
Ser Gly Ala Pro
        35
<210> 78
<211> 35
<212> PRT
<213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
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<221> AMIDATION
<222> (35)
<223> Ala in position 35 is amidated
<400> 78
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
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10
 1
                 5
                                                         15
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
                                25
            20
Ser Gly Ala
        35
<210> 79
<211> 35
<212> PRT
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    Amino Acid Sequence
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<221> AMIDATION
<222> (35)
<223> Ala in position 35 is amidated
<400> 79
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
 . 20
                                25
                                                     30
Ser Gly Ala
        35
<210> 80
<211> 34
<212> PRT
<213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> AMIDATION
<222> (34)
<223> Gly in position 34 is amidated
<400> 80
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
            20
                                25
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<210> 81

Ser Gly

<211> 34 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (34) <223> Gly in position 34 is amidated <400> 81 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser 20 Ser Gly <210> 82 <211> 33 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (33) <223> Ser in position 33 is amidated <400> 82 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 20 25 Ser <210> 83 <211> 33 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220>

- 52

<221> AMIDATION <222> (33) <223> Ser in position 33 is amidated His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser Ser <210> 84 <211> 32 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (32) <223> Ser in position 32 is amidated <400> 84 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 10 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 25 <210> 85 <211> 32 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (32) <223> Ser in position 32 is amidated His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu

<210> 86

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser 20 25 30



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<211> 31
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
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<221> AMIDATION
<222> (31)
<223> Pro in position 31 is amidated
<400> 86
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro
<210> 87
<211> 31
<212> PRT
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      Amino Acid Sequence
<220>
<221> AMIDATION
<222> (31)
<223> Pro in position 31 is amidated
<400> 87
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro
<210> 88
<211> 30
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> AMIDATION
<222> (30)
<223> Gly in position 30 is amidated
<400> 88
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
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1
                   5
                                      10
                                                          15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly
          20
 <210> 89
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 <222> (29)
 <223> Gly in position 29 is amidated
 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
                                      10
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly
                                  25
 <210> 90
<211> 29
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 <222> (29)
 <223> Gly in position 29 is amidated
 <400> 90
 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
                  5
                                     10
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly
             20
                                 25
 <210> 91
 <211> 38
 <212> PRT
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Amino Acid Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

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<223> Xaa in position 31 is tPro
<220>
<221> VARIANT
<222> (36)..(38)
<223> Xaa in positions 36-38 is tPro
<220>
<221> AMIDATION
<222> (38)
<223> tPro in postion 38 is amidated
<400> 91
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
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Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser
            20
Ser Gly Ala Xaa Xaa Xaa
        35
<210> 92
<211> 38
<212> PRT
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<223> Xaa in positions 36-38 is tPro
<220>
<221> AMIDATION
<222> (38)
<223> tPro in position 38 is amidated
<400> 92
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
            20
                                 25
Ser Gly Ala Xaa Xaa Xaa
        35
<210> 93
<211> 37
<212> PRT
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<223> Description of Artificial Sequence: Synthetic
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<223> Xaa in position 31 stands for Nme
<220>
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<222> (37)
<223> Pro in position 37 is amidated
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Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser
                                 25
Ser Gly Ala Pro Pro
        35
<210> 94
<211> 37
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<223> Xaa in position 31 is Nme
<220>
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<222> (36)..(37)
<223> Xaa in positions 36-37 is Nme
<220>
<221> AMIDATION
<222> (37)
<223> Nme in position 37 is amidated
<400> 94
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
                                     10
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser
            20
                                 25
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99
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Ser Gly Ala Xaa Xaa
        35
<210> 95
<211> 37
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<223> Xaa in position 31 stands for hPro
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<221> VARIANT
<222> (36)..(37)
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<220>
<221> AMIDATION
<222> (37)
<223> hPro in position 37 is amidated
<400> 95
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser
            20
                                 25
Ser Gly Ala Xaa Xaa
        35
<210> 96
<211> 36
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<223> Xaa in position 31 stands for hPro
<220>
<221> VARIANT
<222> (36)
<223> Xaa in position 36 stands for hPro
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<220> <221> AMIDATION <222> (36) <223> hPro in position 36 is amidated His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 10 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser 25 Ser Gly Ala Xaa 35 <210> 97 <211> 35 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (35) <223> Ala in position 35 is amidated Arg Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 25. Ser Gly Ala 35 <210> 98 <211> 30 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (30) <223> Gly in position 30 is amidated His Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu

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Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly 20 <210> 99 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> VARIANT <222> (6) <223> Xaa in position 6 stands for naph <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 99 His Gly Glu Gly Thr Xaa Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn 20 <210> 100 <211> 28 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 100 His Gly Glu Gly Thr Phe Ser Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn 20 <210> 101 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic



Amino Acid Sequence

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<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
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His Gly Glu Gly Thr Phe Ser Thr Asp Leu Ser Lys Gln Met Glu Glu
                                     10
                5
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
<210> 102
<211> 28
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
<400> 102
His Gly Glu Gly Thr Phe Thr Ser Glu Leu Ser Lys Gln Met Ala Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
            20
<210> 103
<211> 28
<212> PRT
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      Amino Acid Sequence
<220>
<221> VARIANT
<222> (10)
<223> Xaa in position 10 stands for pGly
<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
<400> 103
His Gly Glu Gly Thr Phe Thr Ser Asp Xaa Ser Lys Gln Leu Glu Glu
                                     10
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Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <223> Xaa in position 22 stands for naph 10 Glu Ala Val Arg Leu Xaa Ile Glu Phe Leu Lys Asn

<222> (28) <223> Asn in position 28 is amidated <400> 104 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu

<210> 105 <211> 28 <212> PRT <213> Artificial Sequence

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<210> 104 <211> 28 <212> PRT

<220>

<220>

<220>

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<221> VARIANT <222> (22)

<221> AMIDATION

<223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

<220> <221> VARIANT <222> (23) <223> Xaa in position 23 stands for tBug <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated

<400> 105 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu

Glu Ala Val Arg Leu Phe Xaa Glu Trp Leu Lys Asn

<210> 106

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99
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<211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 106 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu 10 Glu Ala Val Arg Leu Phe Ile Asp Phe Leu Lys Asn 20 <210> 107 <211> 33 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (33) <223> Ser in position 33 is amidated His Gly Glu Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Leu Glu Glu 10 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser 25 Ser <210> 108 <211> 29 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION

<222> (29)

<223> Gly in position 29 is amidated



<400> 108 His Gly Glu Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Met Glu Glu 10 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly 20 <210> 109 <211> 37 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> VARIANT <222> (31) <223> Xaa in position 31 stands for hPro <220> <221> VARIANT <222> (36)..(37) <223> Xaa in positions 36-37 stands for hPro <220> <221> AMIDATION <222> (37) <223> hPro in position 37 is amidated His Gly Glu Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser Ser Gly Ala Xaa Xaa 35 <210> 110 <211> 27 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> VARIANT <222> (1) <223> Xaa in position 1 stands for

4-Imidazolylpropionyl-Gly

<220> <221> VARIANT <222> (26) <223> Xaa in position 26 stands for Lys-NH(epsilon) octanoyl <220> <221> AMIDATION <222> (27) <223> Asn in position 27 is amidated Xaa Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu 10 Ala Val Arg Leu Phe Ile Glu Trp Leu Xaa Asn 20 <210> 111 <211> 27 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> VARIANT <222> (1) <223> Xaa in position 1 stands for 4-Imidazolylpropionyl-Gly <220> <221> VARIANT <222> (26) <223> Xaa in position 26 stands for Lys-NH(epsilon) octanoyl <220> <221> AMIDATION <222> (27) <223> Asn in position 27 is amidated <400> 111 Xaa Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu 10 15 Ala Val Arg Leu Phe Ile Glu Phe Leu Xaa Asn 20 <210> 112 <211> 29 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic

Amino Acid Sequence

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      4-Imidazolylpropionyl-Gly
<220>
<221> VARIANT
<222> (26)
<223> Xaa in position 26 stands for Lys-NH(epsilon) octanoyl
<220>
<221> AMIDATION
<222> (29)
<223> Gly in position 29 is amidated
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Xaa Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu
                                     10
Ala Val Arg Leu Phe Ile Glu Trp Leu Xaa Asn Gly Gly
<210> 113
<211> 29
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<223> Xaa in position 1 stands for
      4-Imidazolylpropionyl-Gly
<220>
<221> VARIANT
<222> (26)
<223> Xaa in position 26 stands for Lys-NH(epsilon) octanoyl
<220>
<221> AMIDATION
<222> (29)
<223> Gly in position 29 is amidated
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Xaa Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu
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Ala Val Arg Leu Phe Ile Glu Phe Leu Xaa Asn Gly Gly

<210> 114

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<211> 27
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<221> VARIANT
<222> (1)
<223> Xaa in position 1 stands for
      4-Imidazolylpropionyl-Gly
<220>
<221> VARIANT
<222> (27)
<223> Xaa in position 27 stands for Lys-NH(epsilon) octanoyl
<220>
<221> AMIDATION
<222> (27)
<223> Lys-NH(epsilon) octanoyl in position 27 is amidated
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Xaa Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu
Ala Val Arg Leu Phe Ile Glu Trp Leu Asn Xaa
            20
                                 25
<210> 115
<211> 27
<212> PRT
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<223> Xaa in position 1 stands for
      4-Imidazolylpropionyl-Gly
<220>
<221> VARIANT
<222> (27)
<223> Xaa in position 27 stands for Lys-NH(epsilon) octanoyl
<220>
<221> AMIDATION
<222> (27)
<223> Lys-NH(epsilon) octanoyl in position 27 is amidated
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<400> 115



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Xaa Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu
                                     10
Ala Val Arg Leu Phe Ile Glu Phe Leu Asn Xaa
            20
                                25
<210> 116
<211> 29
<212> PRT
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<222> (1)
<223> Xaa in position 1 stands for
      4-Imidazolylpropionyl-Gly
<220>
<221> VARIANT
<222> (27)
<223> Xaa in position 27 stands for Lys-NH(epsilon) octanoyl
<220>
<221> AMIDATION
<222> (29)
<223> Gly in position 29 is amidated
<400> 116
Xaa Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu
                                                         15
                 5
                                     10
Ala Val Arg Leu Phe Ile Glu Trp Leu Asn Xaa Gly Gly
            20
<210> 117
<211> 29
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<223> Description of Artificial Sequence: Synthetic
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<222> (1)
<223> Xaa in position 1 stands for
      4-Imidazolylpropionyl-Gly
<220>
<221> VARIANT
<222> (27)
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<223> Xaa in position 27 stands for Lys-NH(epsilon) octanoyl

<220> <221> AMIDATION <222> (29) <223> Gly in postion 29 is amidated <400> 117 Xaa Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Asn Xaa Gly Gly 20 <210> 118 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 118 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu 10 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn 20 <210> 119 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 119 His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu 5 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn 20 <210> 120 <211> 28

<212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated His Gly Glu Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu 10 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn 20 <210> 121 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 121 His Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu 5 10 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn 20 <210> 122 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 122

Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu

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Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
<210> 123
<211> 28
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<213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthetic
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<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
<400> 123
His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
<210> 124
<211> 28
<212> PRT
<213> Artificial Sequence
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      Amino Acid Sequence
<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
<400> 124
His Gly Glu Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
                                    10
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
<210> 125
<211> 28
<212> PRT
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<223> Description of Artificial Sequence: Synthetic
     Amino Acid Sequence
<220>
<221> AMIDATION
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<222> (28) <223> Asn in position 28 is amidated

<400> 125

His Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn 20 25

<210> 126

<211> 28

<212> PRT

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<220>

<223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

<220>

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<222> (28)

<223> Asn in position 28 is amidated

<400> 126

His Gly Glu Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Met Glu Glu 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn 20 25

<210> 127

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 Amino Acid Sequence

<220>

<221> AMIDATION

<222> (28)

<223> Asn in position 28 is amidated

<400> 127

Ala Ala Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn 20 25

<210> 128

<211> 28

<212> PRT

<213> Artificial Sequence

96

<220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 128 Ala Ala Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn 20 <210> 129 <211> 28 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 129 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn 20 <210> 130 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 130 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn

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<210> 131
<211> 28
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<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
<400> 131
Ala Gly Asp Gly Ala Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
            20
<210> 132
<211> 28
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
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<222> (28)
<223> Asn in position 28 is amidated
Ala Gly Asp Gly Ala Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
<210> 133
<211> 28
<212> PRT
<213> Artificial Sequence
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<220>
<221> VARIANT
<222> (6)
<223> Xaa in position 6 stands for Nala
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<220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated Ala Gly Asp Gly Thr Xaa Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 10 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn 20 <210> 134 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220>

<220> <221> VARIANT <222> (6)

<223> Xaa in position 6 stands for Nala

<220>

<221> AMIDATION

<222> (28)

<223> Asn in position 28 is amidated

<400> 134

Ala Gly Asp Gly Thr Xaa Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn

<210> 135

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

<220>

<221> AMIDATION

<222> (28)

<223> Asn in position 28 is amidated

<400> 135

Ala Gly Asp Gly Thr Phe Ser Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn

20 . 25

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<210> 136
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<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
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Ala Gly Asp Gly Thr Phe Ser Ser Asp Leu Ser Lys Gln Leu Glu Glu
                                     10
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
            20
<210> 137
<211> 28
<212> PRT
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<222> (28)
<223> Asn in position 28 is amidated
<400> 137
Ala Gly Asp Gly Thr Phe Thr Ala Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
            20
<210> 138
<211> 28
<212> PRT
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<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
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Ala Gly Asp Gly Thr Phe Thr Ala Asp Leu Ser Lys Gln Leu Glu Glu 10 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn <210> 139 <211> 28

<212> PRT <213> Artificial Sequence

<220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

<220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated

<400> 139 Ala Gly Asp Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu 10

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn 20

<210> 140 <211> 28 <212> PRT <213> Artificial Sequence

<220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

<220> <221> AMIDATION <222> (28)

<223> Asn in position 28 is amidated

<400> 140 Ala Gly Asp Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn 20

<210> 141 <211> 28 <212> PRT <213> Artificial Sequence

<223> Description of Artificial Sequence: Synthetic



Amino Acid Sequence

<210> 144

<220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 141 Ala Gly Asp Gly Thr Phe Thr Ser Glu Leu Ser Lys Gln Met Glu Glu 5 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn <210> 142 <211> 28 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 142 Ala Gly Asp Gly Thr Phe Thr Ser Glu Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn 20 <210> 143 <211> 28 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated Ala Gly Asp Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn

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<211> 28
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<220>
<223> Description of Artificial Sequence: Synthetic
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<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
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Ala Gly Asp Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Leu Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
            20
<210> 145
<211> 28
<212> PRT
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<221> VARIANT
<222> (10)
<223> Xaa in position 10 stands for Pgly
<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
<400> 145
Ala Gly Asp Gly Thr Phe Thr Ser Asp Xaa Ser Lys Gln Met Glu Glu
                                    10
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
            20
                                25
<210> 146
<211> 28
<212> PRT
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     Amino Acid Sequence
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<221> VARIANT
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Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn

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<210> 149
  <211> 28
  <212> PRT
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 <222> (28)
 <223> Asn in position 28 is amidated
 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Ala Gln Met Glu Glu
                                      10
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
 <210> 150
 <211> 28
 <212> PRT
 <213> Artificial Sequence
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       Amino Acid Sequence
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 <222> (28)
 <223> Asn in position 28 is amidated
 <400> 150
 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Ala Gln Leu Glu Glu
                                      10
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 <210> 151
 <211> 28
 <212> PRT
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<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

<220>

<221> AMIDATION

<222> (28)

<223> Asn in position 28 is amidated

<400> 151



Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Ala Met Glu Glu 10 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn <210> 152 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 152 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Ala Leu Glu Glu - 5 10 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn 20 . <210> 153 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 153 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Ala Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn <210> 154 <211> 28 <212> PRT <213> Artificial Sequence

:220>

<223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

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<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
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                                      10
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
             2.0
<210> 155
<211> 28
<212> PRT
<213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
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<222> (14)
<223> Xaa in position 14 stands for pGly
<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Xaa Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
            20
                                 25
<210> 156
<211> 28
<212> PRT
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<220>
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<222> (14)
<223> Xaa in position 14 stands for pGly
<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
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<400> 156 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Xaa Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn 20 <210> 157 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 157 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Ala Glu 5 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn <210> 158 <211> 28 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic . Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 158 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Ala Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn 20 <210> 159 <211> 28 <212> PRT

<213> Artificial Sequence

<223> Description of Artificial Sequence: Synthetic



Amino Acid Sequence

<210> 162

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<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
<400> 159
Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Ala
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
<210> 160
<211> 28
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
<400> 160
Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Ala
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
            20
<210> 161
<211> 28
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Ala Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
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99

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<211> 28
<212> PRT
<213> Artificial Sequence
<220>
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<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
<400> 162
Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
Ala Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
            20
<210> 163
<211> 28
<212> PRT
<213> Artificial Sequence
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      Amino Acid Sequence
<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
<400> 163
Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
                                     10
                                                          15
Glu Ala Ala Arg Leu Phe Ile Glu Trp Leu Lys Asn
<210> 164
<211> 28
<212> PRT
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     Amino Acid Sequence
<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
<400> 164
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Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu

1 5 10 15

Glu Ala Ala Arg Leu Phe Ile Glu Phe Leu Lys Asn 20 25

<210> 165

<211> 28

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

<220>

<221> AMIDATION

<222> (28)

<223> Asn in position 28 is amidated

<400> 165

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 1 5 10 15

Glu Ala Val Ala Leu Phe Ile Glu Trp Leu Lys Asn 20 25

<210> 166

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

<220>

<221> AMIDATION

<222> (28)

<223> Asn in position 28 is amidated

<400> 166

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu 1 5 10 15

Glu Ala Val Ala Leu Phe Ile Glu Phe Leu Lys Asn 20 25

<210> 167

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 Amino Acid Sequence .

<220>

<221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 167 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Ala Phe Ile Glu Trp Leu Lys Asn 20 <210> 168 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence. <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 168 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu 10 Glu Ala Val Arg Ala Phe Ile Glu Phe Leu Lys Asn 20 25 <210> 169 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> VARIANT <222> (22) <223> Xaa in position 22 stands for Nala <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 10

Glu Ala Val Arg Leu Xaa Ile Glu Trp Leu Lys Asn

<210> 170 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> VARIANT <222> (22) <223> Xaa in position 22 stands for Nala <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 170 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu 10 Glu Ala Val Arg Leu Xaa Ile Glu Phe Leu Lys Asn <210> 171 <211> 28 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 171 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Val Glu Trp Leu Lys Asn 20 <210> 172 <211> 28 <212> PRT <213> Artificial Sequence

<223> Description of Artificial Sequence: Synthetic

Amino Acid Sequence

99

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<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
<400> 172
Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
                                     10
Glu Ala Val Arg Leu Phe Val Glu Phe Leu Lys Asn
            20
<210> 173
<211> 28
<212> PRT
<213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> VARIANT
<222> (23)
<223> Xaa in position 23 stands for tGly
<220>
<221> AMIDATION .
<222> (28)
<223> Asn in position 28 is amidated
<400> 173
Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
                 5
                                                          15
Glu Ala Val Arg Leu Phe Xaa Glu Trp Leu Lys Asn
<210> 174
<211> 28
<212> PRT
<213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> VARIANT
<222> (23)
<223> Xaa in position 23 stands for tGly
<220>
<221> AMIDATION
<222> (28)
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<223> Asn in position 28 is amidated

90

<400> 174

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Xaa Glu Phe Leu Lys Asn 20 25

<210> 175

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

<220>

<221> AMIDATION

<222> (28)

<223> Asn in position 28 is amidated

<400> 175

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Asp Trp Leu Lys Asn

<210> 176

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

<220>

<221> AMIDATION

<222> (28)

<223> Asn in position 28 is amidated

<400> 176

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Asp Phe Leu Lys Asn 20 25

<210> 177

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

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<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Ala Leu Lys Asn
<210> 178
<211> 28
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
<400> 178
Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
                                     10
Glu Ala Val Arg Leu Phe Ile Glu Ala Leu Lys Asn
            20
<210> 179
<211> 28
<212> PRT
<213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
<400> 179
Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Ala Lys Asn
            20
<210> 180
<211> 28
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<212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Ala Lys Asn 25 <210> 181 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 181 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Ala Asn <210> 182 <211> 28 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Asn in position 28 is amidated <400> 182 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu 5 10

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Ala Asn ~<210> 183 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28) <223> Ala in position 28 is amidated <400> 183 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 10 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Ala 25 <210> 184 <211> 28 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (28): <223> Ala in position 28 is amidated <400> 184 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Ala 20 <210> 185 <211> 38 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

<220>

<221> AMIDATION

<222> (38) <223> Pro in position 38 is amidated <400> 185 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser Ser Gly Ala Pro Pro Pro 35 <210> 186 <211> 38 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (3.8) <223> Pro in position 38 is amidated <400> 186 His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser 20 30 Ser Gly Ala Pro Pro Pro 35 <210> 187 <211> 37 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (37) <223> Pro in position 37 is amidated

His Gly Glu Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 20 25 30

Ser Gly Ala Pro Pro

```
<210> 188
<211> 36
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> AMIDATION
<222> (36)
<223> Pro in position 36 is amidated
<400> 188
His Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu
                                     10
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
            20
Ser Gly Ala Pro
        35
<210> 189
<211> 36
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> AMIDATION
<222> (36)
<223> Pro in position 36 is amidated
<400> 189
Ala Gly Glu Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Leu Glu Glu
                                    10
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
            20
                                                     30
Ser Gly Ala Pro
        35 .
<210> 190
<211> 35
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
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<220>
<221> AMIDATION
<222> (35)
<223> Ala in position 35 is amidated
Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
                                 25
Ser Gly Ala
        35
<210> 191
<211> 35
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> AMIDATION
<222> (35)
<223> Ala in position 35 is amidated
<400> 191
His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
            20
                                 25
Ser Gly Ala
        35
<210> 192
<211> 34
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> AMIDATION
<222> (34)
<223> Gly in position 34 is amidated
<400> 192
His Gly Glu Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
                                    10
```

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 20 25 30

Ser Gly

<210> 193

<211> 33

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

<220>

<221> AMIDATION

<222> (33)

<223> Ser in position 33 is amidated

<400> 193

His Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 20 25 30

Ser

<210> 194

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

<220>

<221> AMIDATION

<222> (32)

<223> Ser in position 32 is amidated

<400> 194

Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 20 25 30

<210> 195

<211> 32

<212> PRT

<213> Artificial Sequence

<220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (32) <223> Ser in position 32 is amidated <400> 195 His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu 10 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser 25 30 <210> 196 <211> 31 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION . <222> (31) <223> Pro in position 31 is amidated <400> 196 His Gly Glu Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro <210> 197 <211> 30 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (30) <223> Gly in position 30 is amidated <400> 197 His Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly

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<210> 198
<211> 29
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> AMIDATION
<222> (29)
<223> Gly in position 29 is amidated
<400> 198
Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly
            20
<210> 199
<211> 38
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> VARIANT
<222> (31)
<223> Xaa in position 31 stands for tPro
<220>
<221> VARIANT
<222> (36)..(38)
<223> Xaa in positions 36-38 stands for tPro
<220>
<221> AMIDATION
<222> (38)
<223> tPro in position 38 is amidated
<400> 199
His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser
Ser Gly Ala Xaa Xaa Xaa
        35
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<210> 200
<211> 38
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic
    Amino Acid Sequence
<220>
<221> VARIANT
<222> (36) ... (38)
<223> Xaa in positions 36-38 stands for tPro
<220>
<221> AMIDATION
<222> (38)
<223> tPro in position 38 is amidated
His Gly Glu Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
            20
                                 25
Ser Gly Ala Xaa Xaa Xaa
        35
<210> 201
<211> 37
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
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<221> VARIANT
<222> (31)
<223> Xaa in position 31 stands for Nme
<220>
<221> VARIANT
<222> (36)..(37)
<223> Xaa in positions 36-37 stands for Nme
<220>
<221> AMIDATION
<222> (37)
<223> Nme in position 37 is amidated
His Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu
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Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser 20 25 30

Ser Gly Ala Xaa Xaa 35

<210> 202

<211> 36

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

<220>

<221> VARIANT

<222> (31)

<223> Xaa in position 31 stands for hPro

<220>

<221> VARIANT

<222> (36)

<223> Xaa in position 36 stands for hPro

<220>

<221> AMIDATION

<222> (36)

<223> hPro in position 36 is amidated

<400> 202

Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser 20 25 30

Ser Gly Ala Xaa 35

<210> 203

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

<220>

<221> AMIDATION

<222> (35)

<223> Ala in position 35 is amidated

<400> 203

His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu

1 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 25 Ser Gly Ala 35 <210> 204 <211> 30 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (30) <223> Gly in position 30 is amidated <400> 204 His Gly Asp Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 10 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly 25 <210> 205 <211> 39 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (39) <223> Ser in position 39 is amidated <400> 205 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 5 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser Ser Gly Ala Pro Pro Pro Ser

<210> 206 <211> 39 <212> PRT

<213> Artificial Sequence

<220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> AMIDATION <222> (39) <223> Ser in position 39 is amidated <400> 206 Ala Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu 10 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser 20 25 Ser Gly Ala Pro Pro Pro Ser . 35 <210> 207 <211> 27 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> VARIANT <222> (1) <223> Xaa in position 1 stands for 4-Imidazolylpropionyl-Gly <220> . <221> VARIANT <222> (26) <223> Xaa in position 26 stands for Lys-NH(epsilon) octanoyl <220> <221> AMIDATION <222> (27) <223> Asn in position 27 is amidated <400> 207 Xaa Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Xaa Asn 20 <210> 208 <211> 27 <212> PRT <213> Artificial Sequence <220>

<223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> VARIANT <222> (1) <223> Xaa in position 1 stands for 4-Imidazolylpropionyl-Gly <220> <221> VARIANT <222> (26) <223> Xaa in position 26 stands for Lys-NH(epsilon) octanoyl <220> <221> AMIDATION <222> (27) <223> Asn in position 27 is amidated <400> 208 Xaa Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu Glu 10 Ala Val Arg Leu Phe Ile Glu Phe Leu Xaa Asn 20 <210> 209 <211> 29 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> VARIANT <222> (1) <223> Xaa in position 1 stands for 4-Imidazolylpropionyl-Gly <220> <221> VARIANT <222> (26) <223> Xaa in position 26 stands for Lys-NH(epsilon) octanoyl <220> <221> AMIDATION <222> (29) <223> Gly in position 29 is amidated <400> 209 Xaa Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu Glu

Ala Val Arg Leu Phe Ile Glu Trp Leu Xaa Asn Gly Gly

20 . 25

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<210> 210
 <211> 29
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
       Amino Acid Sequence
 <220>
 <221> VARIANT
 <222> (1)
 <223> Xaa in position 1 stands for
       4-Imidazolylpropionyl-Gly
 <220>
 <221> VARIANT
 <222> (26)
 <223> Xaa in position 26 stands for Lys-NH(epsilon) octanoyl
 <220>
 <221> AMIDATION
 <222> (29)
 <223> Gly in position 29 is amidated
<400> 210
 Xaa Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu Glu
                  5
 Ala Val Arg Leu Phe Ile Glu Phe Leu Xaa Asn Gly Gly
 <210> 211
 <211> 27
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
       Amino Acid Sequence
 <220>
 <221> VARIANT
 <222> (1)
 <223> Xaa in position 1 stands for
       4-Imidazolylpropionyl-Gly
 <220>
 <221> VARIANT
 <222> (27)
 <223> Xaa in position 27 stands for Lys-NH(epsilon) octanoyl
 <220>
 <221> AMIDATION
 <222> (27)
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<223> Lys-NH(epsilon) octanoyl in position 27 is amidated <400> 211 Xaa Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Asn Xaa 20 25 <210> 212 <211> 27 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> VARIANT <222> (1) <223> Xaa in position 1 stands for 4-Imidazolylpropionyl-Gly <220> <221> VARIANT <222> (27) <223> Xaa in position 27 stands for Lys-NH(epsilon) octanoyl <220> <221> AMIDATION <222> (27) <223> Lys-NH(epsilon) octanoyl Xaa Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu Glu 10 Ala Val Arg Leu Phe Ile Glu Phe Leu Asn Xaa 20 <210> 213 <211> 29 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> VARIANT <222> (1) <223> Xaa in positon 1 stands for 4-Imidazolylpropionyl-Gly <220>



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<221> VARIANT
 <222> (27)
 <223> Xaa in position 27 stands for Lys-NH(epsilon) octanoyl
 <220>
 <221> AMIDATION
 <222> (29)
 <223> Gly in position 29 is amidated
 <400> 213
 Xaa Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu Glu
                                      10
 Ala Val Arg Leu Phe Ile Glu Trp Leu Asn Xaa Gly Gly
             20
 <210> 214
 <211> 29
 <212> PRT
 <213> Artificial Sequence
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 <223> Description of Artificial Sequence: Synthetic
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 <220>
 <221> VARIANT
. <222> (1)
 <223> Xaa in position 1 stands for
       4-Imidazolylpropionyl-Gly
 <220>
 <221> VARIANT
 <222> (27)
 <223> Xaa in position 27 stands for Lys-NH(epsilon) octanoyl
 <220>
 <221> AMIDATION
 <222> (29)
 <223> Gly in position 29 is amidated
 <400> 214
 Xaa Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu Glu
 Ala Val Arg Leu Phe Ile Glu Phe Leu Asn Xaa Gly Gly
             20
 <210> 215
 <211> 28
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
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Amino Acid Sequence

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<220>
<221> VARIANT
<222> (27)
<223> Xaa in position 27 stands for Lys-NH(epsilon) octanoyl
<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
<400> 215
Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Xaa Asn
<210> 216
<211> 28
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> VARIANT
<222> (27)
<223> Xaa in position 27 stands for Lys-NH(epsilon) octanoyl
<220>
<221> AMIDATION
<222> (28)
<223> Asn in position 28 is amidated
Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Xaa Asn
            20
<210> 217
<211> 30
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> VARIANT
<222> (27)
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<223> Xaa in position 27 stands for Lys-NH(epsilon) octanoyl

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<220>
 <221> AMIDATION
 <222> (30)
 <223> Gly in position 30 is amidated
 <400> 217
 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
                                      10
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Xaa Asn Gly Gly
                                  25
 <210> 218
 <211> 30
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
       Amino Acid Sequence
 <220>
 <221> VARIANT
 <222> (27)
 <223> Xaa in position 27 stands for Lys-NH(epsilon) octanoyl
 <220>
<221> AMIDATION
 <222> (30)
 <223> Gly in position 30 is amidated
 <400> 218
 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
                  5
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Xaa Asn Gly Gly
             20
                                  25
 <210> 219
 <211> 28
 <212> PRT
 <213> Artificial Sequence
 <220>
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      Amino Acid Sequence
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 <221> VARIANT
 <222> (28)
 <223> Xaa in position 28 stands for Lys-NH(epsilon) octanoyl
 <220>
 <221> AMIDATION
 <222> (28)
 <223> Lys-NH(epsilon) octanoyl in position 28 is amidated
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<400> 219 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Asn Xaa <210> 220 <211> 28 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> VARIANT <222> (28) <223> Xaa in position 28 stands for Lys-NH(epsilon) octanoyl <220> <221> AMIDATION <222> (28) <223> Lys-NH(epsilon) octanoyl in position 28 is amidated <400> 220 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Asn Xaa 20 -<210> 221 <211> 30 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> VARIANT <222> (28) <223> Xaa in position 28 stands for Lys-NH(epsilon) octanoyl <220> <221> AMIDATION <222> (30) <223> Gly in position 30 is amidated <400> 221 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 10

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Asn Xaa Gly Gly

20 25 30

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<210> 222
<211> 30
<212> PRT
<213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthetic
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<220>
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<222> (28)
<223> Xaa in position 28 stands for Lys-NH(epsilon) octanoyl
<220>
<221> AMIDATION
<222> (30)
<223> Gly in position 30 is amidated
Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
                                     10
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Asn Xaa Gly Gly
                                 25
<210> 223
<211> 39
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> MOD RES
<222> (12)
<223> Lys-PEG
<220>
<221> AMIDATION
<222> (39)
<223> Ser in position 39 is amidated
<400> 223
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
                                      10
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
Ser Gly Ala Pro Pro Pro Ser
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35

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<210> 224
<211> 39
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> MOD RES
<222> (27)
<223> Lys-PEG
<220>
<221> AMIDATION
<222> (39)
<223> Ser in position 39 is amidated
<400> 224
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
  1
                  5
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
             20
                                  25
Ser Gly Ala Pro Pro Pro Ser
         35
<210> 225
<211> 39
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      Amino Acid Sequence
<220>
<221> MOD_RES
<222> (2)
<223> Lys-PEG
<220>
<221> AMIDATION
<222> (39)
<223> Ser in position 39 is amidated
<400> 225
His Lys Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
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20



Ser Gly Ala Pro Pro Pro Ser 35

<400> 227

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<210> 226
 <211> 39
 <212> PRT
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 <222> (5)
 <223> Lys-PEG
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 <222> (39)
 <223> Ser in position 39 is amidated
 <400> 226
 His Gly Glu Gly Lys Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 Ser Gly Ala Pro Pro Pro Ser
          35
<210> 227
 <211> 39
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 <222> (8)
 <223> Lys-PEG
 <220>
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 <222> (39)
 <223> Ser in position 39 is amidated
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His Gly Glu Gly Thr Phe Thr Lys Asp Leu Ser Lys Gln Met Glu Glu

5



Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 20 25 30

Ser Gly Ala Pro Pro Pro Ser 35

- <210> 228
- <211> 39
- <212> PRT
- <213> Artificial Sequence
- <220>
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- <220>
- <221> MOD RES
- <222> (10)
- <223> Lys-PEG
- <220>
- <221> AMIDATION
- <222> (39)
- <223> Ser in position 39 is amidated
- <400> 228
- His Gly Glu Gly Thr Phe Thr Ser Asp Lys Ser Lys Gln Met Glu Glu

 1 10 15
- Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser

Ser Gly Ala Pro Pro Pro Ser

- <210> 229
- <211> 39
- <212> PRT
- <213> Artificial Sequence
- <220>
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- <220>
- <221> MOD_RES
- <222> (11)
- <223> Lys-PEG
- <220>
- <221> AMIDATION
- <222> (39)
- <223> Ser in position 39 is amidated
- <400> 229



His Gly Glu Gly Thr Phe Thr Ser Asp Leu Lys Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 20 25 30

Ser Gly Ala Pro Pro Pro Ser 35

- <210> 230
- <211> 39
- <212> PRT
- <213> Artificial Sequence
- <220>
- <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence
- <220>
- <221> MOD_RES
- <222> (13)
- <223> Lys-PEG
- <220>
- <221> AMIDATION
- <222> (39)
- <223> Ser in position 39 is amidated
- <400> 230
- His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Lys Met Glu Glu $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$
- Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 20 25 30

Ser Gly Ala Pro Pro Pro Ser 35

- <210> 231
- <211> 39
- <212> PRT
- <213> Artificial Sequence
- <220>
- <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence
- <220>
- <221> MOD_RES
- <222> (16)
- <223> Lys-PEG
- <220>
- <221> AMIDATION
- <222> (39)



<223> Ser in position 39 is amidated

<400> 231

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Lys

1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 20 25 30

Ser Gly Ala Pro Pro Pro Ser 35

<210> 232

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 Amino Acid Sequence

<220>

<221> MOD RES

<222> (17)

<223> Lys-PEG

<220>

<221> AMIDATION

<222> (39)

<223> Ser in position 39 is amidated

<400> 232

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Lys Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 20 25 30

Ser Gly Ala Pro Pro Pro Ser 35

<210> 233

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

<220>

<221> MOD_RES

<222> (19)

<223> Lys-PEG



<220>

<221> AMIDATION

<222> (39)

<223> Ser in position 39 is amidated

<400> 233

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Lys Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 20 25 30

Ser Gly Ala Pro Pro Pro Ser 35

<210> 234

<211> 39

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
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<221> MOD RES

<222> (21)

<223> Lys-PEG

<220>

<221> AMIDATION

<222> (39)

<223> Ser in position 39 is amidated

<400> 234

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 1 5 10 15

Glu Ala Val Arg Lys Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser 20 25 30

Ser Gly Ala Pro Pro Pro Ser

<210> 235

<211> 39

<212> PRT

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<2205

<223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

<220>

<221> MOD_RES



<222> (24) <223> Lys-PEG <220> <221> AMIDATION <222> (39) <223> Ser in position 39 is amidated His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 10 Glu Ala Val Arg Leu Phe Ile Lys Trp Leu Lys Asn Gly Gly Pro Ser 20 25 Ser Gly Ala Pro Pro Pro Ser. 35 <210> 236 <211> 39 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> MOD RES <222> (25) <223> Lys-PEG <220> <221> AMIDATION <222> (39) <223> Ser in position 39 is amidated <400> 236 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu 10 Glu Ala Val Arg Leu Phe Ile Glu Lys Leu Lys Asn Gly Gly Pro Ser Ser Gly Ala Pro Pro Pro Ser 35 <210> 237 <211> 39 <212> PRT

<213> Artificial Sequence

<220>

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<220> <221> MOD RES <222> (28) <223> Lys-PEG <220> <221> AMIDATION <222> (39) <223> Ser in position 39 is amidated <400> 237 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Lys Gly Gly Pro Ser Ser Gly Ala Pro Pro Pro Ser 35 <210> 238 <211> 39 <212> PRT <213> Artificial Sequence . <220> <223> Description of Artificial Sequence: Synthetic Amino Acid Sequence <220> <221> MOD RES <222> (29) <223> Lys-PEG <220> <221> AMIDATION <222> (39) <223> Ser in position 39 is amidated <400> 238 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Lys Gly Pro Ser Ser Gly Ala Pro Pro Pro Ser 35 <210> 239

<211> 39 <212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Amino Acid Sequence

<220>

<221> MOD_RES

<222> (30)

<223> Lys-PEG `

<220>

<221> AMIDATION

<222> (39)

<223> Ser in position 39 is amidated

<400> 239

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Lys Pro Ser 20 25 30

Ser Gly Ala Pro Pro Pro Ser 35